SIO 139. Current Research in Marine Biology (2)
Provides an introduction to current research topics and developments in marine biology and biological oceanography. Faculty members and graduate students from Scripps Institution of Oceanography will offer perspectives in these areas. Practice in scientific research and communication skills. PrEREquisites: upper-division standing or consent of instructor. 

Instructor: Brian Palenik 3110 Hubbs, bpalenik@ucsd.edu.
TA: Katherine Nesbitt knesbit@ucsd.edu
Office hours by arrangement.

Writing Center: The Teaching and Learning Commons provides writing support for students. Since this class includes frequent writing assignments consider getting their support for your work. https://commons.ucsd.edu/academic-support/writing/for-undergraduates.html

Cheating: The University imposes strict guidelines on academic integrity (https://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2) and these will be enforced. Anyone caught cheating will receive an F for the course and will be reported to the Academic Integrity coordinator.

Schedule
1. W Jan 9: Types of Writing: lab notebooks, lab reports, scientific papers, white papers, reviews. Why do we write? Discussion of abstracts and paper summaries.
2. W Jan 16: SIO Collections tour. Meet at Collections location in lobby of Vaughn Hall. Note if you have already visited the collections you can alternatively watch a new video about the collections: Oddities: Scripps’ Fascinating Collection of Ocean Life https://ucsd.tv/search-details.aspx?showID=33732
3. W Jan 23 Peer review of paper summary. Discussion of Figures, Figure legends. Begin R.
4. W Jan 30 Analyzing data with R. Dr. Eric Archer, NMFS. PLEASE BRING YOUR LAPTOP IF POSSIBLE.
5. W Feb 6 What else did they write? Reference managers. Amy Butros, UCSD.
6. W Feb 13 3-4 Short graduate student talks.
7. W Feb 20 Prof. Anela Choy
8. W Feb 27 Prof. Phil Hastings
9. W Mar 6 Prof. Deidre Lyons
10. W Mar 13 Science Communication. Dr. Jennifer Brandon, Birch Aquarium.

Paper choices from the SIO Collections:


Other papers:

Scaling from individual plankton to marine ecosystems: Phytoplankton dynamics in the Southern California Bight indicate a complex mixture of transport and biology. 2016. Bialonski, Stephan; Caron, David A.; Schloen, Julia; et al. JOURNAL OF PLANKTON RESEARCH Volume: 38 Issue: 4 Pages: 1077-1091.

Papers by Dede Lyons, Anela Choy, Phil Hastings. TBD
**Homework Assignments**


   ![Harmful Algal Blooms Pseudo-nitzscha seriata group Data](image)

2. Assigned Jan 16. Homework: Read one paper from suggested SIO collections reading list. Write a summary of the paper as discussed in class. See resources below. Show word count on summary. Due Jan 23.

   RStudio: [https://www.rstudio.com](https://www.rstudio.com)
   View introduction to R online [http://www.cyclismo.org/tutorial/R/index.html](http://www.cyclismo.org/tutorial/R/index.html). **And read the first chapter on input.**

4. Assigned Jan 30. Homework: Create a graph using R. Write a Figure Legend. Due Feb 6.

5. Assigned Feb 6. Homework: Use 1 reference from the SIO Collections below. Find 9 more related references that cited them or each other and create a reference library in Endnote online. Keep the papers relatively similar in theme as you will write a literature summary next week. Submit a page with the references formatted as in Author-Date AND in Numbered styles. Due Feb 13.

6. Assigned Feb 13. Homework: Using your 10 papers above, write a literature summary with references. Create a references cited list using your reference manager at the bottom of your literature summary and have citations in the paragraphs of your literature summary. Format in Author-Date style. Due Feb 20.


9. Assigned March 6. Write an approximately 1 page or so reflection on one area of marine science research you find interesting and why. Provide citations in the text and a reference list at the end of at least 5 publications in this area that you find interesting. Due March 13.

When possible, we will have peer-reading/commenting of your exercises in class. **Thus, turn in assignments as hard copies with your name on all pages AND at TritonEd as a Turnitin assignment.** All papers should demonstrate mastery of grammar, punctuation, spelling and syntax expected of college level students. If you need writing assistance, please seek help from Student Support Services and the Writing Center. All papers are to be word-processed, proofread, and solely the work of the author.

**Resources**
https://www.wikihow.com/Summarize-a-Journal-Article